

ON
THE UTILITY
OF THE
ACTUAL CAUTERY.

A
PROBATIONARY ESSAY
ON THE UTILITY OF THE
ACTUAL CAUTERY,
IN
SOME SURGICAL DISEASES;
SUBMITTED,
BY THE AUTHORITY OF THE PRESIDENT AND HIS COUNCIL,
TO THE EXAMINATION OF THE
Royal College of Surgeons of Edinburgh,
WHEN CANDIDATE
FOR ADMISSION INTO THEIR BODY, IN CONFORMITY TO THEIR
REGULATIONS RESPECTING THE ADMISSION OF
ORDINARY FELLOWS.
BY
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“Ad urendum et secandum raro invitique venimus; nec unquam nisi necessario,
si nulla reperietur alia medicina.”—*Cicero de Officiis*, lib. i.

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TO

JOHN ABERCROMBIE, M.D.

&c. &c.

THE AUTHOR INSCRIBES

THESE PAGES,

IN GRATEFUL ACKNOWLEDGMENT

OF OBLIGATIONS

NEVER TO BE REPAID.

ON
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ACTUAL CAUTERY*.

PERHAPS there never was a remedy in the history of our art, which, after having through a succession of ages maintained the confidence of the profession, has fallen so much into disuse, or whose occasional employment is so reluctantly undertaken in the present practice of British Surgery, as that of the Actual Cautery.

* By the term Actual Cautery, as employed in the general sense in the following pages, we beg leave to be understood the application of fire under any of its forms, whether heated iron, moxa, or otherwise.

The causes which have led to this abandonment of a once highly celebrated method of cure, may appear to many sufficiently evident, in the present highly cultivated state of Operative Surgery, which, by means much more simple, can effect, with diminution of time and suffering, all that the Cautery could perform. Who, for instance, in examining the subject of hæmorrhage from wounded arteries, and comparing the simplicity and efficacy of the means now in use for its suppression by ligature or compress, with the more painful, terrific, and much less certain application of the Cautery, can wonder for a moment, that the one should have superseded the use of the other? Who, when looking back upon the treatment of Hernia, or Hydrocele, or Tumors, or Ulcers, and comparing the modern scientific practice in these diseases with what it was in the days of our ancestors, when the red-hot iron was pushed through the Hernial Sac and the Hydrocele, in the attempt to obliterate their cavities; fearlessly applied to sores

with the intention of drying them up; and sunk into tumors till their destruction was thought to be accomplished, can feel surprised that the Cautery should be all but relinquished in modern practice? Or who, in estimating the advantages of the Actual Cautery as a Caustic or Issue, is not satisfied that all its virtues may be obtained by other and milder Caustics, by setons and blisters, and that the rejection of the former, and the establishment of the latter, forms none of the meanest improvements in Surgery? But, whilst we must acknowledge that a principal cause of its abandonment will be found in these gratifying improvements, we are also disposed to believe, that a prejudice founded upon the supposed extreme pain of its operation, has done more to accomplish it than we could *a priori* have supposed. Its present extensive employment on the Continent, and the testimony of writers in this country, afford sufficient proof of the correctness of this opinion*. In-

* See Note A.

deed, it never can with confidence be affirmed, after a due consideration of the subject, that surgery has arrived at such a state of improvement as to exclude the employment of such an agent as the Actual Cautery; for there are cases, even in those departments advanced the nearest to perfection, which, at times, baffle the most skilful application of approved means. In stopping hæmorrhage in general, the surgeon may not find it necessary to have recourse to any means save the ligature or compress; but there are particular cases, over which these will be found to have no control: in the Actual Cautery, we shall find a remedy, if our prejudices do not forbid its use. In the extirpation of tumors in general, the knife will be found the most effectual means; but there are cases of tumors in which, from situation or other causes, the knife will be found inapplicable, or at least, but partially useful: in the Actual Cautery will be found the only certain method of removal. But unhappily these are not solitary

cases; for there are many diseases for whose alleviation or cure the means now employed are as little, or even less efficacious, in some instances, than those in use in the days of the earlier writers in medicine; and we would do well to inquire, if some of the remedies which; in their hands, seem to have been employed with marked success, have not been discarded from modern surgery without due consideration. It may be objected indeed to the Actual Caution, that it is a cruel and a painful remedy. It were needless to deny that it has its terrors and its pains; but it is surely a mistaken humanity which would, from such a cause, resign to hopeless misery, a case which gave but the promise of alleviation. “ Il y a de l’inhumanité, (says PINEL) à ne point faire usage des secours de l’art; et l’on pourroit bien être cruel par une pitié pusillanime *.” Besides, the pain of its operation has been greatly exaggerated; it has ever

* Encyclopédie Méthodique, p. 354.

existed more in imagination than in reality, as its extensive employment in former days, even in comparatively trifling cases, its high and increasing celebrity on the Continent, as well as the declaration of competent judges, sufficiently show *. But again, it may be urged, that the Actual Caутery possesses no virtue but in common with other means of milder nature and operation, such as caustics, setons, &c. To such an objection it may be said, that the French, its great supporters, talk of its possessing an “*irritatio sui generis*,” and producing a “*desorganisation specifique* ;” but it is evident that, as a counter-irritant, a means of removing excrescences, establishing an ulcer, or changing the action of an ulcerated part, it possesses a property of no little estimation, in the quickness, power, and certainty of its effects ; qualities which we have sometimes to lament are not possessed by any of its substitutes. Besides, the writings of both

* See Note B.

ancient and modern authors abound in cases of its successful application when all other means had failed. We would be far from wishing to see the Actual Cautery restored to the place which it once held as an agent of surgery; we would be among the last to countenance so painful a remedy, if it were unnecessary, and we would not be forward to use it on many occasions; but we would rejoice, for the sake of science and humanity, that it did obtain a rank among the resources of our art, in some measure corresponding to the testimony which has been borne to its merits.

“ Quæ medicamenta non sanant (says HIPPOCRATES) ea ferrum sanat; quæ ferrum non sanat, ea ignis sanat; quæ vero ignis non sanat, ea insanabilia existimare oportet*.” Such also were the sentiments of the followers of this illustrious man for ages after his death: indeed, were we to collect the names of those

* Sect. viii. Aphorism. 6.

who have eulogised its merits, we should rank in the list almost every one, till within the last century, to which we are accustomed to look with veneration and respect.

In the sixteenth century, however, the estimation in which it had so long been held was evidently declining ; it had become a remedy for almost every disease, and was more the instrument of empiricism than of true science ; cases, consequently, were every day occurring, to mark its want of success. Some of the ablest men, it is true, of those times, still continued the advocates of the Actual Cautey. PROSPERUS ALPINUS, unsuccessful in his attempts to continue the red-hot iron, again introduced the moxa, the ancient practice of the Egyptians*. GUY DE CHULIAC, also, and MARCUS AURELIUS SEVERINUS, two of the restorers of surgery, were also powerful supporters of the remedy : the latter hesitated not to accuse the

* De Medicina Egyptiorum, lib. iii. cap. xii.

surgeons of his time as the cause of its abandonment, and called upon them to use their utmost endeavours to restore it." "Quin vero (says he) non operam damus, non omnes nervos intendimus, quo generosa, Herculea chirurgia morbos omnes domans et superans restituatur et suo quasi loco restituatur*."

SCULTETUS, GLANDORPIUS, and many others, laboured in the same field with very partial success—its employment gradually diminished, and, for more than a century, in this country, has been altogether abandoned; so that now the numerous variety of instruments by which its application was effected, are almost nowhere to be seen but in the collections of the curious. In France, however, its fate has been in many respects different—it never experienced there the neglect it has met with in Britain. DIONIS, indeed, had discountenanced it in the beginning of last century, but POUTEAU, who may justly be considered one of the

* *Pyrotechniæ Chirurgicæ*, lib. i. par. 1. cap. 15.

brightest ornaments of French surgery, very soon after revived it, employing it extensively and successfully. DESAULT, also, and many other eminent surgeons of that country, were in the habit of using it. The Royal Academy of Surgery, impressed with the opinion of the importance of fire as a surgical agent, in 1755, proposed a series of questions as the subject of a prize essay, in treating which, an opportunity was afforded of examining its merits *. The memoirs of MONS. DE LA BISSIERE, and MONS. LOUIS, were successful, and each of these authors have satisfactorily shown, that the Cautery is a valuable and a powerful remedy, and too much neglected in modern practice †. Under this conviction, in 1791, the same illustrious Society endeavoured, by proposing another set of questions as the subject of another prize essay, to bring the Cautery into more general use ‡. The prize was awarded

* See note C.

† Prix de l'Académie de Chirurgie, tome vii.

‡ See note D.

in the succeeding year to the celebrated BARON PERCY, for his admirable essay, which justly claims the rank of a classic in medical literature, and well merits the distinction it possesses in being a principal mean of confirming and establishing the practice of cauterization on the Continent *. Since that time, many volumes have appeared on the subject, both in Italy and France, and all commendatory of the Actual Cautery. The most eminent of the French surgeons are in the daily habit of using it—PELLETAN, DUPUYTREN, and LARREY, are among its ablest advocates.

The limits necessarily assigned to such an Essay as this will prevent us doing justice to the subject, and we must content ourselves with offering a few observations on the application of the remedy to some of the more interesting surgical diseases. In following out this plan, we might, in strict justice, have

* Pyrotechnie Chirurgicale-Pratique.

availed ourselves of the great mass of evidence in its favour, to be found in the writings of the older authors, but we have preferred confining ourselves to facts drawn from the experience of writers nearer our own day, as being less liable to objection, they having employed it from a conviction of its superiority to other means in general use.

The Actual Caustery then promises to be a useful remedy.

I. *In some Diseases of the Eye.*

Some of the most untractable affections of this organ, after having resisted the powers of every mean in general use, have been known to yield to the application of fire. “ L’application du feu, (says M. VALENTIN) de préférence sur le sommet de la tête, m’a paru très-efficace dans plusieurs cas d’ophthalmies rebelles, d’ulcerations de la cornée, quelque en soit la cause, et dans la cécité qui les accompagne, ou qui en est la suite immédiate. D’autres fois elle n’a

pas été moins utile, lorsque l'organe était frappé d'amaurosis. Ses effets ont quelquefois surpassé mon attente, lorsque les remèdes internes et externes, les vésicatoires multipliés, les setons, les cautères potentiels, &c. avaient été employés sans succès *." The benefits of the remedy in obstinate Ophthalmia are well illustrated by the following case, communicated by Dr. BARDE to the Society of Practical Medicine at Paris. M. F. I. had laboured under the affection for nearly six years, and had used, without success, collyria, derivative bleedings, vesicatories, and setons. When visited by Dr. B. the conjunctiva, both of the eyelids and eyes, was found extremely red and swelled, and the vessels on the cornea injected with blood—vision was so indistinct that he could only distinguish objects at a few paces distant. The moxa was immediately applied to each temple, and a seton inserted in the neck by means of a red-hot iron. The most

* Mémoire et Observations concernant les bons effets du Cautère Actuel, page 2.

happy effects were produced in consequence, and at the end of twenty days every symptom had disappeared *.” In the “Memoirs” of BARON LARREY will be found some interesting observations on the application of the moxa in cases of Amaurosis. “Nous avons arrêté (says he) par ce moyen les progrès de l’amaurose ou goutte sereine, et nous l’avons fait disparaître chez quelques sujets où la cécité était complète †. The remedy was found a useful one in the hands of HOFFMAN, DECKERS, POUTEAU, and many others.

The heated iron is found a useful, in many cases an indispensable resource, in performing the operation of extirpation of the eye-ball for Cancer, Fungus Hæmatodes, &c. not only as a certain means of arresting the hæmorrhage which supervenes, but also of destroying the fungous excrescences, which cannot be done

* Quarterly Journal of Foreign Medicine and Surgery, vol. ii. p. 451.

† Dictionnaire des Sciences Medicales, tome xxxiv. p. 462.

completely with the knife, and which, when left, too often give rise to irremediable disease. The celebrated LOUIS, who first taught and practised the method of operating in extirpation of the eye-ball upon fixed and scientific principles, considered it as the only certain manner of removing them. “Le fer et le feu (says he) sont le plus souvent des moyens indispensables pour détruire efficacement ces végétations fongueuses jusques dans leurs racines *.” The practice is followed by the first surgeons in France, and by a few also in our own country.

The French surgeons have recommended the Actual Cautery for the cure of some diseases of the eye-lids, as the Ectropium and Trichiasis, but the means employed by British surgeons seem to be equally successful, and to the vicinity of such a delicate organ, more advisable.

† Mémoires de l'Académie Royale de Chirurgie, tome xiii. p. 338.

II. *In some Diseases of the Mouth.*

In this class of affections there are not a few diseases which are the cause of protracted and hopeless suffering on the part of the patient, and the source, accordingly, of much anxiety to the surgeon. The peculiar situation of the organs themselves, and the rapid course and deep rooted nature of some of their affections, have too often resisted the aids of surgery, or, when they have been attempted, have only proved how ineffectual the most skilful application of them is. But it is not to be denied that surgery is able, in many such cases, to effect the most beneficial consequences—the knife and the ligature are often used with the happiest effects ; and did the surgeons of this country encounter their ravages with the powerful opposition of the Cautery, when other means are inapplicable, there is reason to believe that we should not have occasion so frequently to witness their painful termination. “ HIPPOCRATE (says BARON PERCY)

dans les ulcères malins de la bouche, dans les végétations tuberculeuses du palais, dans le cancer de la langue, etc. ne perdoit pas un temps précieux en de vaines lotions, en de timides tentatives, d'excision ou d'érosion.—Le feu, les fers embrasés ; voilà les remèdes énergiques qu'il opposoit à ces maux dévastateurs ; voilà les armes avec lesquelles il a prescrit de les combattre. Osons enfin nous rapprocher de cette mâle pratique ; la gloire de l'art et le salut de l'humanité nous y invitent également*.”

Cancerous disease of the tongue is perhaps one of the most afflicting diseases to which humanity is liable ; independent of the acute and lancinating pain that attends it, the unhappy sufferer is rendered unable, when the disease has made any progress, to swallow food or drink without the assistance of means which cannot be employed without pain, and can only express his wishes by signs. “ Surgery, how-

* *Pyrotechnie Chirurgicale-Pratique*, p. 238.

ever, (says Mr. S. COOPER,) is not destitute of resources against diseases of so formidable a nature. The following case (he continues) exemplifies the benefit which may be effected by this useful profession, when not exercised by men of too timorous a character*." He then goes on to quote the well-known case recorded by RUYSCH, in which that eminent surgeon was called into consultation on the case of a woman who suffered under a disease of this kind, which had been several times removed, but always returned; but which was at last successfully removed by excision with a curved bistoury, and destroying the roots with the Actual Cautery †. Mr. COOPER's recommendation of such a practice is the best argument in its favour, as in every other part of his work he has almost uniformly condemned it. Happily the disease which requires its use is not of very frequent occurrence.

* Dictionary of Practical Surgery, p. 1037.

† Observat. Anatomic. Chirurg. Centur. Obs. 76.

BARON PERCY only met with one example, but in it, the prejudices of friends would not admit the application of the Cautery—it terminated fatally*.

In many other of the diseases of the mouth, the actual Cautery is the grand remedy. In tumours of the jaws, after their removal by the knife, it is requisite for the destruction of roots, or the suppression of hæmorrhage. “It must not be forgotten, (says Mr. J. Bell,) that there are cases where even this horrid method may yet need to be used, as in bleedings from the gums, cheeks, palate, or tonsils, or other parts within the mouth†.”

Surgeons in every age and country, have sought the aid of the heated iron in the removal of tumours from the antrum, both as an effectual means of suppressing hæmorrhage, and a certain mode of destroying the fungous excrescences which remain when the knife has been laid aside

* *Pyrotechnie Chirurgicale-Pratique*, p. 239.

† *Discourses on the Nature and Cure of Wounds*, p. 121.

as useless. “ If there be any case in surgery, (says Mr. COOPER,) justifying the use of a red-hot iron, it is a fungus of the antrum *.” In a very aggravated case of this kind, DESAULT, after having made a free opening into the antrum, removed a considerable part of the tumour with a convenient form of knife, but a profuse hæmorrhage coming on, the operation was finished by a free application of the Cautery ; the bleeding was stopped, and the cavity filled with lint. The deformity of the face, and other disagreeable symptoms, were disappearing, when, on the 18th day, a fungous growth made its appearance, but it was almost entirely destroyed by two applications of the Cautery. On the 25th it again appeared, when the heated iron accomplished its destruction, healthy granulations began to form in the cavity, and the cure went on rapidly †. In another case, recorded by the

* Dictionary of Practical Surgery, p. 332.

† Œuvres Chirurgicales de Desault par Bichat, tome ii. p. 165.

same author, the Cautery was equally successful. The removal of the tumour had been ineffectually attempted by ligature, and when the patient was admitted into the Hôtel Dieu, it was of an enormous size, depressing the vault of the palate, and occupying such a portion of the mouth and nostrils, as to impede much the actions of deglutition and respiration. The tumour was removed by dissection, the fungi destroyed, and the bleeding stopped, by the application of the heated iron. A portion of fungus appeared on the 30th day after the operation, which in six days attained the size of a pigeon's egg; the heated iron was applied, and the eschar fell off in three days; the size of the cheek sensibly diminished, the patient's sufferings were trifling, and his cure daily advanced. On the 25th day, however, after the second application of the Cautery, some fungi appeared in the bottom of the sinus: they were likewise destroyed by the Cautery; but on the 29th day, after the third application, a deep seated fungus

was discovered, which seemed to originate from the velum pendulum palati: it was also destroyed by the heated iron, introduced by a canula through the nose. This was the last application of the Cautery,—the fungi having been destroyed even to their roots, and never more appeared. The patient remained in the hospital a month after his cure, and was discharged perfectly well on the 134th day after his admission *. MR. CROSS mentions his having seen the practice attended with the best effects in a case operated on by PELLETAN in the Hôtel Dieu †. But it is unnecessary to multiply examples; the annals of Surgery sufficiently show that it is the only adequate remedy for such a formidable disease.

III. *In some Diseases of the Joints.*

The two most important of this class of affections, white swelling and hip disease, (as

* Parisian Chirurgical Journal, translated by GOSLING, vol. i. page 104.

† Sketches of the Medical Schools of Paris, page 86.

they are commonly called,) have, with too much justice, been ranked among the opprobria of our art. When they have advanced a certain progress, they are uniformly set down as hopeless cases—the surgeon contents himself with the administration of palliative means, and, after going through the usual routine of practice, finds that ankylosis has rendered his patient lame for the remainder of his days, or that the inroads making on his health obliges the amputation of the limb (if, indeed, it can be performed,) for the preservation of his life. Of the different means that have been resorted to for preventing such miserable terminations, all are agreed, that keeping up a puriform discharge from the vicinity of the diseased joints, is undoubtedly the most efficacious. Blisters, setons, and caustic issues, have always been the remedies in which the confidence of the surgeons of this country have been placed—their want of success is too manifest to need illustration—but the recommendation of the Actual Cautery, by a British surgeon, who has

elsewhere characterized it as a "horrid method," sufficiently shows the inutility of other means. "The immediate progress of the disease (says Mr. J. BELL) is best antagonised by the counter irritation of blisters, or rather of deep and large issues upon the hip, or by the application of cauteries, the oldest and perhaps the best method of cure *." The French have long been in the habit of using the moxa and heated iron in these diseases, and surely the counter irritation produced by the one, and the facility with which a large and deep issue may be effected by the other, are superior to any means now in use in this country. POUTEAU derived the greatest advantages from burning, in the white-swelling of the knee-joint: his experience led him to give the preference to the application of moxa; and the results of its employment in cases which certainly would have been reckoned hopeless, were most surprising †. PERCY, on the other

* Principles of Surgery, vol. i. page 569.

† Œuvres Posthumes, tome ii. mem. 1.

hand, was led to place greater reliance on the heated iron, from the greater power and promptness of its operation, virtues which he has well illustrated also in his work *. Of later writers, the names of BOYER, LARREY, ROUX, and many others, might be adduced, as favourable to the practice, but it would extend these pages to an undue length, were we to embody any of their observations or examples. MR. COOPER informs us, that the late DR. ALBERS and M. LANGENBECK (of the information contained in whose writings, we regret we have not been able to avail ourselves,) have also expressed themselves very favourably towards the moxa in these diseases of the joints, and concur in opinion, that it is not the painful operation it is said to be.

IV. *In some Diseases of the Spine.*

MR. POTT, who is the earliest author who entertained correct opinions of the nature of distorted spine, from caries of the vertebræ, recom-

* Pyrotechnie Chirurgicale-Pratique, page 288.

mends as the principal means of cure, the establishment of a purulent drain on each side of the diseased bones, and considers it a matter of very little importance, in what manner this is procured, provided it be large and come from a sufficient depth. He had tried for that purpose, setons, and issues, both by incision and caustic; to the last he gave the preference. There are few surgeons, however, we believe, who have not had reason to be disappointed with all means in use in this country, for effecting the purpose. The caustic, certainly the mode to be preferred, is extremely painful in its operation, and tedious in producing a slough of any depth; indeed, it is scarcely possible to obtain a speedy or an effectual discharge by its means. Some of the French Surgeons have recommended the application of the heated iron itself, as a powerful and effectual method; and there can be little doubt that, if the prejudices of the Surgeons at home were not opposed to it, the quickness of its operation, and the facility

with which it can be regulated, would be strong arguments for extending its use to Britain. But it is not so much the heated iron, as the moxa, that has been so successful on the Continent. BARON PERCY, who in this affection, as well as in others, prefers the heated iron, acknowledges his having seen DESAULT, in the Hôtel Dieu, restore to health by means of the moxa, two young men who for several years had been deprived of the use of their limbs *. POUTEAU, whose works abound in cases of this affection, after a trial of different means, was led to repose the greatest confidence in this remedy in all severe cases. “ De tous les remèdes, (says he) capables de fondre, de dissoudre des engorgemens invétérés et formés par des sacs de mauvais caractères, le feu est le plus puissant †.” BARON LARREY, speaks most decidedly of its good effects. “ Les recherches que j’ai faites, (says he) pendant une trentaine

* Pyrotechnie Chirurgicale-Pratique, p. 280.

† Œuvres Posthumes, tome i. p. 578.

d'années dans les camps et les hôpitaux militaires, m'ont mis à même de vérifier les principes du célèbre médecin Anglais (POTT,) et d'analyser, dans les plus grands détails, les phénomènes que cette maladie présente dans ses différentes périodes. Mes essais nombreux (continues he) m'ont également fait connaître un remède souverain contre cette cruelle affection dans l'application répétée du moxa *.”

“ Un grand nombre de sujets, (says he, at p. 371,) que l'on croyait désespérés, ont dû leur salut à l'emploi de ce moyen héroïque.” JORDAN says of moxa, “ On a vu ce dernier réussir dans des cas où les apophyses épineuses des vertèbres dorsales commençaient déjà à faire une saillie bien prononcée, et où même les jambes étaient, depuis quelques années, privées de la faculté de se mouvoir †.” DR. BARDE employed the same means in an interesting case produced by external violence with com-

* Mémoires de Chirurgie Militaire, tome iv. p. 365.

† Dictionnaire des Sciences Medicales, tome xv. p. 126

plete success*. It is worthy of remark, that there is no mention made of any of the numerous patients treated by these gentlemen, complaining of the pain of the operation—and many of them were delicate females. POUTEAU mentions that in several of his cases the patient submitted to it readily, and gives an admirable instance in which a girl of nine years of age, from having previously experienced its benefits, requested that it might again be employed.

V. *In some painful Nervous Affections.*

If a patient, in the paroxysm of toothache, has been known to submit to the application of a red-hot iron to the affected tooth, and has even been bold enough to be the operator himself, a fact which daily experience places beyond contradiction; can we suppose that any one contemplating the pain of the remedy will re-

* Quarterly Journal of Foreign Medicine and Surgery, vol. ii. p. 450.

fuse its aid in any other of those painful affections of the nerves, which frequently disappoint every hope and remedy of the surgeon?

There are several cases recorded by authors of a painful affection of the supra-orbital nerve, in many respects similar to, but certainly milder than, the *Tic Douloureux*, which have yielded to the application of moxa to the vicinity of the nerve, or the use of the heated iron to the crown of the head; but the disease in which its effects have been most marked is the *Sciatica*, which, there is reason to believe, is intimately connected in its nature, if not specifically the same as the *Tic Douloureux*, certain it is, that it is a most distressing and untractable complaint. “ Le simple moxa a suffi, (says JOURDAN) dans plus d’une occasion, pour dissiper les douleurs ischiadiques, les plus rebelles et les plus invétérées, celles qui avaient résisté à tous les autres moyens, linimens, frictions sèches, bains de vapeurs, vésicatoires,

etc *.” The experience of POUTEAU confirms the assertion, and enables him to give many cases in illustration. PERCY, as in other cases, gives the preference to heated iron, though he acknowledges that “la simple brûlure de coton a souvent dissipé les douleurs ischiadiques les plus rebelles et les plus invétérées †.” M. LA BISSIERE relates the following interesting case: “S. M. *** Anglais de nation, âgé d’environ quarante-cinq ans, fut attaqué d’une sciatique violente, des deux côtes, et réduit au lit pendant plusieurs mois, comme paralytique des deux extrémités inférieures. Le peu de succès des remèdes qu’on lui avait administrés en grand nombre, le faissait regarder comme incurable, et on le condamnoit à demeurer perdu le reste de ses jours. Un médecin de sa nation, qu’il trouva, lui fit quatre grandes escarres avec le cautère sur le sacrum. Cette pratique tira ce malheureux de l’état pitoyable

* Dictionnaire des Sciences Médicales, tome xv. p. 141.

† Pyrotechnie, p. 297.

où il était, et le guérit parfaitement *.” DR. BARDE, in his communication already referred to, gives the history of a very interesting case of sciatica, which had for seven years nearly resisted every remedy. The patient was reduced to a most distressing state ; unable to move a limb or turn in bed ; yet the application of four moxas along the course of the sciatic nerve, and two others afterwards on the knee, was attended with the happiest effects. A month after their application he was able to go about his usual employment, which he had not done for seven years †. DR. DUNCAN, jun. has lately employed the moxa, in several cases of this affection, in the Clinical wards of our Royal Infirmary with complete success.

It would have been easy to have extended these observations, and to have gone on to adduce examples of the beneficial effects of the

* Prix de l'Academie Royale de Chirurgie, tome vii. p. 223.

† Quarterly Journal of Foreign Medicine, vol. ii. p. 451.

Cautery, in several other diseases which come within the province of the surgeon, such as diseases of the Bones, Cancerous, and other affections; but the limits set to such an essay as the present, prevent us from enlarging. We shall only take notice of the experience of some authors, of its utility in the *Hospital Gangrene*. Surgeons are almost undivided in opinion that no internal remedy is of any avail in this terrible disease, and that few, very few, external applications have proved themselves worthy of confidence in arresting its progress. "The most efficient applications will be found to be those, (we quote the words of one of our ablest writers on the subject,) whatever may be their particular nature or composition, which have the power of destroying the morbid action in the sore, by converting the nerves, blood-vessels, &c. on its surface, and in its immediate vicinity, into a dead slough or eschar. At one period (he continues) the Actual Cautery would have been the means resorted to in such a case, and there

can be little doubt that it would have proved an effectual remedy. The prejudices of the times, however, are now against its use*.” Though the necessity of thus converting the face of the ulcer into a complete eschar, be admitted by the ablest writers in every country, the means by which it is sought to be accomplished are very different in their efficacy—while the Continental surgeons are using with success the heated-iron, a prejudice against it (which certainly might be overcome) must limit our remedies to the less powerful and much less efficacious application of caustics. It was this which prevented DR. HENNEN using it in the British Hospitals during the war, and has prevented its recommendation in our best works on Surgery. But the French, unshackled by such prejudices, have long been in the habit of employing it. POUTEAU, who gave the first modern distinct account of the disease, is a powerful supporter of the Caутery. “ La préférence (says

* Blackadder on Phagedæna Gangrænosa, p. 49.

he) sera à mon avis toute entière pour le feu.”*

“The Actual Cautery (says a late visitor to Paris) is the only means that has been found effectual in stopping the fatal progress of bad cases of Hospital ulcer, and the iron is applied red-hot, so as to produce an eschar on every point of the surface of the sore †.” “Nous avons reçu à l’hôpital Saint Eloi de Montpellier (says DELPECH) cent cinquante militaires blessés sous les murs de Pampelune, dont les plaies étaient toutes infectées de la pourriture d’hôpital, à un degré assez avancé. Le Cautère Actuel a été appliqué sur toutes ces plaies; ce traitement est le seul que les malades aient subi, et la pourriture a été arrêtée avec un promptitude qui a frappé tous les assistans ‡.”

* Œuvres Posthumes, tome iii. p. 252.

† Cross’s Sketches of the Medical Schools of Paris, p. 84.

‡ Précis Elémentaire des Maladies réputées Chirurgicales, tome i. p. 131.

NOTES.

NOTE A.

“ There exists so strong a prejudice against it, that I hesitated much to encourage its adoption in the British Hospitals.” — HENNEN, *Observations on Military Surgery*, page 246.

“ The Surgeons of this country entertain a strong aversion to the practice.” — COOPER, *Dictionary of Practical Surgery*, page 658.

“ There can be little doubt that it would have proved an effectual remedy. The prejudices of the times, however, are now against its use.” — BLACKADDER, *Observations on Phagedæna Gangrænosa*, page 49.

“ I was acquainted with a Surgeon of considerable reputation, who recommended the frequent application of a hot iron to them (enlarged tonsils.) He spoke confidently of his success; but I should scarcely expect that any person would follow his practice.” — GRAINGER, *Medical and Surgical Remarks*, page 76.

NOTE B.

“ Ego, ut mea ab experientia et rationibus deducta sententia vobis innotescat, libere fateor, malle me potius sex actuali quam unam potentiali corpori meo infligi fontanellam. Actuale Cautereum majorem metum quam dolorem incutit.”—GLANDORPIUS, *Gazophylac. Polyplus. de Fonticulis et Setaceis*, page 32.

“ J’ai pu conclure, 1°. que la douleur resultante du feu n’est pas une douleur majeure, comme on l’a prétendu ; 2°. que cette douleur n’est presque pas sentie, quand elle pèse sur la fibre musculaire après l’ustion des tégumens ; 3°. qu’elle cesse complètement quand l’action de brûler est finie ou même suspendue ; 4°. enfin, que cette opération du feu est, comparativement aux autres, la plus courte et la moins grave de toutes.”—DELLONNES, *Nouvelles Considérations sur le Caulère Actuel*, page 438.

“ For the pain of the burning itself, the first time it is sharp, so that a man may be allowed to complain: I resolved I would not, but that I would count to a certain number, as the best measure how long it lasted: I told six score and four, as fast as I could, and, when the fire of the moxa was out, all pain of burning was over. The second time was not near so sharp as the first, and the third a great deal less than the second.”—*Letters written by SIR WM. TEMPLE, Bart.* vol. i. p. 135.

NOTE C.

“ Le feu ou Cautère Actuel n’a-t-il pas été trop employé par les anciens, et trop négligé par les modernes? En quels cas ce moyen doit-il être préféré aux autres pour la cure des maladies chirurgicales, et quelles sont les raisons de préférence?”—*Prix de l’Académie Royale*, tome vii. p. 128.

NOTE D.

“ Quelles doivent être la matière et la forme des instrumens propres à la cauterisation? Suivant quelles règles et avec quelles précautions doit-on s’en servir, eu égard aux différentes parties et à la distinction des cas ou leur application, sera jugée nécessaire ou utile?”

FINIS.

